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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,866	04/16/2001	Heinz Willebrand	69971	5585

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FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER

PHAN, HANH

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,866

Applicant(s)

WILLEBRAND, HEINZ

Examiner

Hanh Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7, 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 10/10/2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 7-12, 23-26, 31, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Izadpanah et al (U.S. Patent Application Publication No. 2002/0122230).

Regarding claims 1 and 23, referring to figure 1a, Izadpanah discloses a method of managing a free-space optical network, comprising the steps of:

directing network data traffic (104, 106)(i.e., a laser portion, and a radio frequency portion) over one or more free-space optical links in the free-space optical network;

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monitoring (108)(i.e., a controller) one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and

routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links (see page 3, from paragraph 0037 to paragraph 0044).

Regarding claims 2, 7, 8, and 24, Izadpanah discloses the alternate communication path comprises a communication path that is not affected by the at least one of the one or more environmental conditions (Fig. 1a and see page 3, from paragraph 0037 to paragraph 0044).

Regarding claims 3 and 25, Izadpanah discloses the alternate communication path comprises more than one mode of communication (Fig. 1a).

Regarding claim 4, Izadpanah discloses the alternate communication path comprises a radio frequency (RF) communication path (Fig. 1a).

Regarding claims 9 and 26, Izadpanah discloses the step of monitoring one or more environmental conditions comprises the step of: collecting the data indicative of at least one of the one or more environmental conditions with an instrument located in the vicinity of the at least one of the one or more free-space optical links (Fig. 1a and see page 3, from paragraph 0037 to paragraph 0044).

Regarding claim 10, Izadpanah discloses the instrument is coupled to the free-space optical network, and wherein the step of monitoring one or more environmental conditions

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further comprises the step of: polling the instrument from within the free-space optical network (page 3, from paragraph 0037 to paragraph 0044).

Regarding claim 11, Izadpanah discloses the step of monitoring one or more environmental conditions further comprises the step of: storing the data indicative of at least one of the one or more environmental conditions in a memory (page 3, from paragraph 0037 to paragraph 0044).

Regarding claim 12, Izadpanah discloses the step of monitoring one or more environmental conditions further comprises the step of: comparing the data indicative of at least one of the one or more environmental conditions to the predetermined level (Fig. 1a, page 3, from paragraph 0037 to paragraph 0044).

Regarding claims 31 and 33, Izadpanah discloses wherein the step of routing the network data traffic through an alternate communication path further comprises the step of:

selecting the alternate communication path (Fig. 1a, page 3, from paragraph 0037 to paragraph 0044).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izadpanah et al (U.S. Patent Application Publication No. 2002/0122230).

Regarding claim 5, it would have been obvious to obtain alternate communication path comprises a fiber optic communication path in order to avoid the adverse consequences that the environment and atmosphere can have on the transmitted light beams.

Regarding claim 6, it would have been obvious to obtain alternate communication path comprises a wire communication path in order to avoid the adverse consequences that the environment and atmosphere can have on the transmitted light beams.

6. Claims 13, 14, 27-30, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izadpanah et al (U.S. Patent Application Publication No. 2002/0122230) in view of Bae (U.S. Patent number 5,790,286).

Regarding claims 13, 14, 27, and 29, Izadpanah differs from claims 13, 14, 27, and 29 in that he does not specifically teach sending an alarm over the free-space optical network in response to the data indicative of at least one of the one or more environmental conditions falling below the predetermined level. However, Bae teaches sending an alarm over the free-space optical network in response to the data indicative of at least one of the one or more environmental conditions falling below the predetermined level (Fig. 3, col. 3, lines 56-67, col. 4, lines 1-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the sending an alarm over the free-space optical network in response to the data indicative of at least one of the one or more environmental conditions

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falling below the predetermined level as taught by Bae in the system of Izadpanah in order to optimize for a particular set of atmospheric and weather conditions.

Regarding claims 28 and 30, Izadpanah further discloses the alternate communication path comprises more than one mode of communication (Fig. 1a of Izadpanah).

Regarding claim 34, Izadpanah discloses wherein the step of routing the network data traffic through an alternate communication path further comprises the step of:

selecting the alternate communication path (Fig. 1a, page 3, from paragraph 0037 to paragraph 0044).

7. Claims 15-22 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izadpanah et al (U.S. Patent Application Publication No. 2002/0122230) in view of Dodley et al (U.S. Patent number 5,966,229).

Regarding claim 15, referring to figure 1a, Izadpanah teaches a method of managing a free-space optical network, comprising the steps of:

directing (104, 106) network data traffic over one or more free-space optical links in the free-space optical network;

monitoring (108) one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and

routing the network data traffic through an alternate communication path in response to a failure (see page 3, from paragraph 0037 to paragraph 0044).

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Izadpanah differs from claim 15 in that he does not specifically teach attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links. However, Dodley teaches attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links (Figs. 1 and 2, col. 3, lines 30-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links as taught by Dodley in the system of Izadpanah in order to maintain a stable and reliable optical communications link between the terminal users.

Regarding claims 16, Izadpanah further discloses the alternate communication path comprises a communication path that is not affected by the at least one of the one or more environmental conditions (Fig. 1a and see page 3, from paragraph 0037 to paragraph 0044).

Regarding claims 17, Izadpanah further discloses the alternate communication path comprises more than one mode of communication (Fig. 1a).

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Regarding claims 18, Izadpanah further discloses the alternate communication path comprises a radio frequency (RF) communication path (Fig. 1a).

Regarding claim 19, it would have been obvious to obtain alternate communication path comprises a fiber optic communication path in order to avoid the adverse consequences that the environment and atmosphere can have on the transmitted light beams.

Regarding claim 20, it would have been obvious to obtain alternate communication path comprises a wire communication path in order to avoid the adverse consequences that the environment and atmosphere can have on the transmitted light beams.

Regarding claims 21 and 22, Izadpanah further discloses the alternate communication path comprises a communication path that is not affected by the at least one of the one or more environmental conditions (Fig. 1a and see page 3, from paragraph 0037 to paragraph 0044).

Regarding claim 32, Izadpanah further discloses wherein the step of routing the network data traffic through an alternate communication path further comprises the step of:

selecting the alternate communication path (Fig. 1a, page 3, from paragraph 0037 to paragraph 0044).

8. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

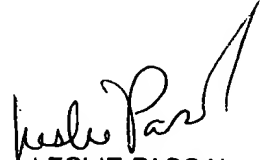
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


LESLIE PASCAL
PRIMARY EXAMINER